Developmental Disabilities and Overlapping Psychiatric Conditions: A Comprehensive Overview

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Developmental Disabilities Definition

- Developmental disabilities are a group of conditions due to an impairment in physical, learning, language, or behavior areas.

- These conditions begin during the developmental period, may impact day-to-day functioning, and usually last throughout a person's lifetime.

- Over 6 million individuals in the United States have developmental disabilities. Some examples of more common developmental disabilities are (Autism, Behavior Disorders, Brain Injury, Cerebral Palsy, Down Syndrome, Fetal Alcohol Syndrome, Intellectual Disability, Spina Bifida.)

- Center for Disease Control (CDC)

South Central Los Angeles Regional Center (SCLARC) Developmental Disabilities Categories

- **Intellectual Disability**: (also known as *Mental Retardation*) - deficits in intellectual functioning and adaptive functioning.
- **Cerebral Palsy**: a set of conditions that affect the control a person has over movement. It is caused by damage to the parts of the brain that control movement and posture or the failure of those parts to develop appropriately.
- **Epilepsy:** neurological condition, originating from the brain, involving the presence of seizures.
- **Autism:** significant impairment in social functioning and disordered communication, usually accompanied by repetitive behaviors, restricted interests, and other specific behavior patterns.
- **5th Category:** disabling condition(s) found to be closely related to mental retardation or to require treatment similar to that required for Individuals with an Intellectual Disability.

Nature Versus Nurture

- This debate within psychology is concerned with the extent to which particular aspects of behavior are a product of either inherited (i.e. genetic) or acquired (i.e. learned) characteristics."

- ***Nature*** is that which is inherited / genetic

- ***Nurture*** which refers to all environmental influences after conception, i.e. experience

Brain Development

- 21 days post-conception: the neural plate (ectoderm) forms the neural tube & central cerebral ventricles.
- 40 days post-conception 3 swellings are noted, the forebrain, midbrain, & hindbrain
- Brain growth is rapid in first and third trimesters
- Brain accounts for 25% of body weight at birth
- By six months of age, brain weighs half (1.5 lbs) of adult brain (3lbs)
- Left and right hemispheres are connected by four major commissures; corpus callosum is largest
- Neural “Pruning” around age two and mid-twenties
- Continued changes AKA “development” throughout life

Biopsychosocial Perspective

- **Biological:** Are there any biological issues that may be causing or influencing the individual's "current" level of functioning or symptomotology (e.g., complications during pregnancy, trauma at birth, brain injury, medical condition, etc.).

- **Psychological:** What are the individual issues (e.g., thought processes, general thinking, ego strength, etc.).

- **Social:** What are the social influences (culture, community, language, school, work, etc.)

- **Family:** what are the family dynamics: parents, single-home, married, high conflict, DV, abuse, etc.).

- **Environmental Factors:** Low SES, Poverty, overcrowedeness, poor air quality, high crime/violent communities, lack of access to resources, etc.

Child Development Vs. Growth

What is child development?

1. refers to how a child becomes able to do more complex things as they get older.

2. **Development** is different than growth, which refers to the process of acquired a variety of specific skills, etc.

3. ***Growth*** only refers to the child getting bigger in size (e.g., physical).

Child Development

- When referring to typical development, this refers to the development of specific skills such as:

1. **Gross motor:** using large groups of muscles to sit, stand, walk, run, etc., keeping balance, and changing positions.
2. **Fine motor:** using hands to be able to eat, draw, dress, play, write, and do many other things.
3. **Language:** speaking, using body language and gestures, communicating, and understanding what others say.
4. **Cognitive:** Thinking skills: including learning, understanding, problem-solving, reasoning, and remembering.
5. **Social:** Interacting with others, having relationships with family, friends, and teachers, cooperating, and responding to the feelings of others. This often originates in the family (or early place of residence)

The Cognitive Context

- Cognitive theory is concerned with the development of a person's thought processes and how these thought processes influence how we understand and interact with the world."

Cognitive Factors: Learning & Memory

- Learning & Memory are Interdépendant

- **Learning and memory** are interdependent system. Learning is the ability to acquire the skill or knowledge, and memory is the expression of what was acquired.

Learning and Memory

The functional memory system involves three aspects:

1. **Encoding**: Sensory information that is *encoded* into short-term memory.

2. **Consolidation**: Information may be *consolidated* into long-term storage.

3. **Retrieval**: Stored information is accessed and *retrieved*.

Defining Social Skills

- Any skill facilitating interaction and communication with others
- Absence of undue conflict or disharmony
- Social skills are key to learning

Overview of Developmental Risk Factors

- Developmental disabilities begin anytime during the developmental period and usually last throughout a person's lifetime.
- Most developmental disabilities begin before a baby is born, but some can happen after birth because of injury, infection, or other factors.
- Most developmental disabilities are thought to be caused by a complex mix of factors, including genetics; parental health and behaviors (such as smoking and drinking) during pregnancy; complications during birth; infections the mother might have during pregnancy or the baby might have very early in life; and exposure of the mother or child to high levels of environmental toxins, such as lead.
- For some developmental disabilities, such as fetal alcohol syndrome, which is caused by drinking alcohol during pregnancy, we know the cause. But for most, we don't!!!

Critical vs. Sensitive Periods of Development

<u>Critical period</u>: is a phase during which the brain cell connections are more plastic and receptive to the influence of a certain kind of life experience. These connections, called synapses, can form or strengthen more easily during this period. Synaptic connections usually mature and changes stabilize after this window of time and the wirings become harder to change.

- According to the ***Critical Period Hypothesis***, during the critical period, a new skill or trait can be formed given the proper life experience. If the necessary experience is not available during this time, it becomes much harder, less successful or even impossible to acquire the skill or trait after the window of opportunity closes.

- ***<u>For example</u>***, if one eye (but not both) is covered right after birth, the deprived eye will lose visual acuity permanently, even if the covered period is brief postnatal. This is because covering an eye during the critical period can alter the physical pathways of the brain permanently.

Critical vs. Sensitive Periods of Development

<u>Sensitive period</u>: is similar to a critical period in which the brain is relatively more plastic and more sensitive to the influence of experience in forming new synapses. New synapses can still form for an extended period of time outside of this optimal period despite being more difficult.

Critical periods are important because many crucial functions of our body are established during those periods, and some *only* during those periods.

Studies have found that the following functions are best developed during their critical periods.

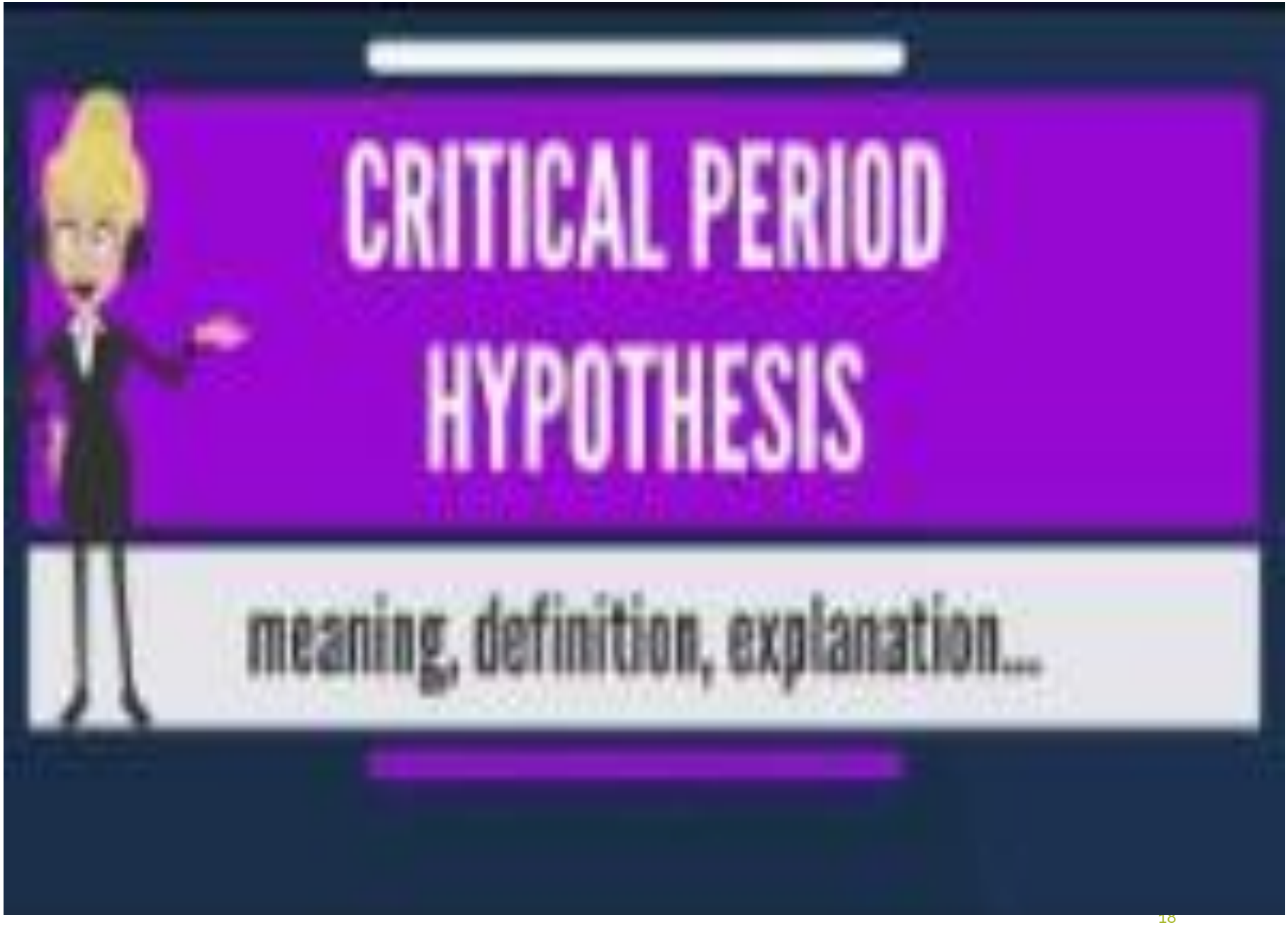
Significance of the Sensitive Period

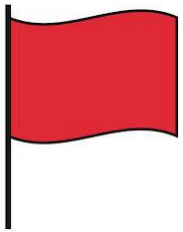
Emotional self-regulation: is the ability to monitor and modulate emotions. Learning to self-regulate is a key milestone in a child's development. It can significantly impact a child's relationships, academic performance, mental health and long-term well-being.

Auditory Processing: For children who are born with congenital deafness, the absence of auditory input from birth can affect the normal growth of a functional auditory system, severely affecting their ability to learn to speak.

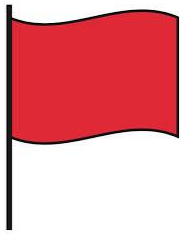
Critical Period For Language Acquisition:
When applied to language learning, the Critical Period Hypothesis states that there is a critical time during which individuals are more capable of acquiring new languages with native-like proficiency.

This period begins in early childhood and concludes shortly before the onset of puberty. After this window, even with a linguistically rich environment, it becomes much more difficult to acquire new language competency[3] and full mastery is much more challenging.


CRITICAL PERIOD
HYPOTHESIS
meaning, definition, explanation...



RED FLAGS



- Titled “Delays to Watch For” throughout presentation.

- Behaviors or delays that signal a possible problem with development and suggest that

1. Clinical consultation is warranted

(AND/OR)

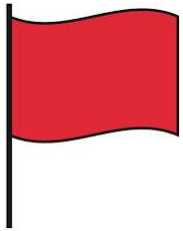
2. Further evaluation is needed

DELAYS TO WATCH FOR AT 3 MONTHS

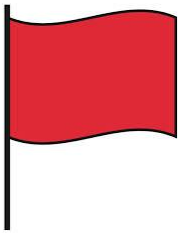
- Doesn't watch things as they move
- Doesn't smile at Individuals
- Can't hold head steady
- Doesn't coo or make sounds
- Doesn't bring things to mouth
- Doesn't push down with legs when feet are placed on a hard surface
- Has trouble moving one or both eyes in all directions
- Typical /atypical development at four months

DELAYS TO WATCH FOR AT 6 MONTHS

- Doesn't try to get things that are in reach
- Shows no affection for caregivers
- Doesn't respond to sounds around him
- Has difficulty getting things to mouth
- Doesn't make vowel sounds ("ah", "eh", "ee", "oo")
- Doesn't roll over in either direction
- Doesn't laugh or make squealing sounds
- Seems very stiff, with tight muscles
- Seems very floppy, like a rag doll
- **Typical and atypical development at 6 months**



DELAYS TO WATCH FOR AT 9 MONTHS



- Doesn’t bear weight on legs with support
- Doesn’t sit with help
- Doesn’t babble (“mama”, “baba”, “dada”)
- Doesn’t play any games involving back and forth play
- Doesn’t respond to own name
- Doesn’t seem to recognize familiar Individuals
- Doesn’t look where you point
- Doesn’t transfer toys from one hand to the other

DELAYS TO WATCH FOR AT 12 MONTHS

- Can't stand when supported
- Doesn't search for things that she sees you hide
- Doesn't say single words like "mama" or "dada"
- Doesn't learn gestures like waving or shaking head
- Doesn't point to things
- Loses skills he once had
- Typical vs. Atypical Development
- Early signs of autism in 10 month-old

Developmental Psychopathology

- Viewing abnormal behavior within the context of normal development is important to understanding *all* abnormal behavior.
- However, a **developmental psychopathology** approach is absolutely essential to disorders of childhood, because children change rapidly during the first "**20**" years of life.
- Psychologist become concerned only when a child's behavior deviates substantially from **developmental norms,** behavior that is typical for children of a given age.

Developmental Psychopathology

- 10% of children have a diagnosable disorder that causes some level of impairment
- continuities and discontinuities but many children do not grow out of their disorder
- disorder may be stable, but symptom patterns change
- attempt to classify limited by
  - multiple pathways → single disorder
  - single pathway → multiple disorders
- social changes may increase prevalence
- risk and resilience factors also be considered

Source: Centers for Disease Control and Prevention (CDC)

DSM-5 Definition

- **Excerpt:**

"The neurodevelopmental disorders are a group of conditions with onset in the developmental period. The disorders typically manifest early in development, often before the child enters grade school, and are characterized by developmental deficits that produce impairments of personal, social, academic, or occupational functioning. The range of developmental deficits varies from very specific limitations of learning or control of executive functions to global impairments of social skills or intelligence."

DMS-5: Neurodevelopmental Disorders

- **Intellectual Disabilities**
  - Intellectual Disability (Intellectual Developmental Disorder: ID)
  - Global Developmental Delay
  - Unspecified Intellectual Disability (Intellectual Developmental Disorder)

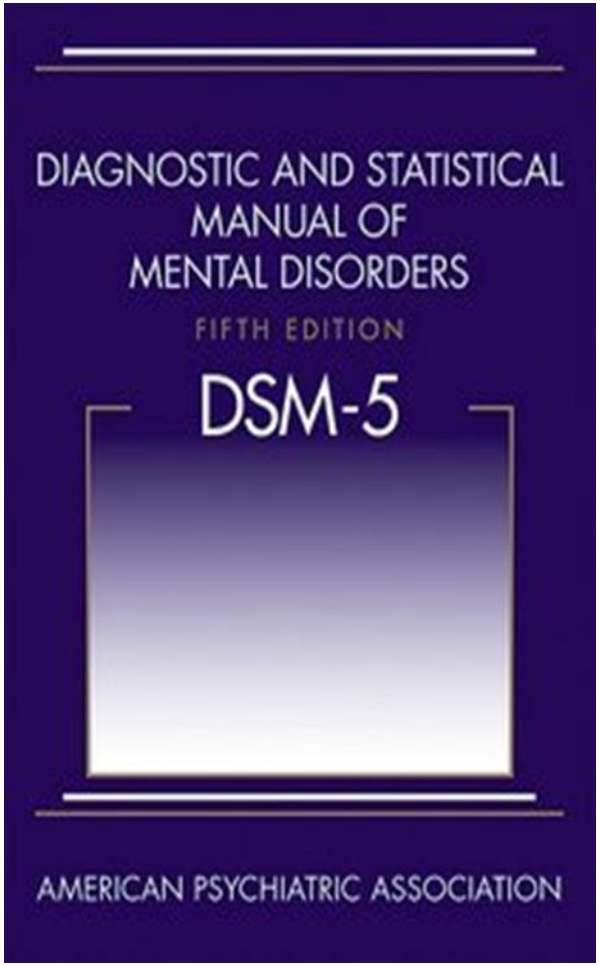
- **Communication Disorders**
  - Language Disorder
  - Speech Sound Disorder (previously Phonological Disorder)
  - Childhood-Onset Fluency Disorder (Stuttering)
  - Social (Pragmatic) Communication Disorder
  - Unspecified Communication Disorder

- **Autism Spectrum Disorder**
  - Autism Spectrum Disorder

- **Attention-Deficit/Hyperactivity Disorder**
  - Attention-Deficit/Hyperactivity Disorder
  - Other Specified Attention-Deficit/Hyperactivity Disorder
  - Unspecified Attention-Deficit/Hyperactivity Disorder
  - **Specific Learning Disorder**
  - Specific Learning Disorder

- **Motor Disorders**
  - Developmental Coordination Disorder
  - Stereotypic Movement Disorder
  - *Tic Disorders*
  - Tourette's Disorder
  - Persistent (Chronic) Motor or Vocal Tic Disorder
  - Provisional Tic Disorder
  - Other Specified Tic Disorder Unspecified Tic Disorder

- **Other Neurodevelopmental Disorders**
  - Other Specified Neurodevelopmental Disorder Unspecified Neurodevelopmental Disorder



Intellectual Disability (ID)
(formally known as Mental Retardation: MR)

- ***Nature of ID***
  - **Disorder of childhood**
  - **Below-average intellectual and adaptive functioning**
  - **Range of impairment varies greatly across persons**
- ***ID***
  - **Significantly subaverage intellectual functioning (IQ below 70 - about 2-3% of the population)**
  - **<u>Concurrent deficits</u> or impairments two or more areas of adaptive functioning**

Intellectual disability (ID)

According to DSM-5, there are three criteria that must be fulfilled in order for the diagnosis of intellectual disability (American Psychiatric Association, 2013).

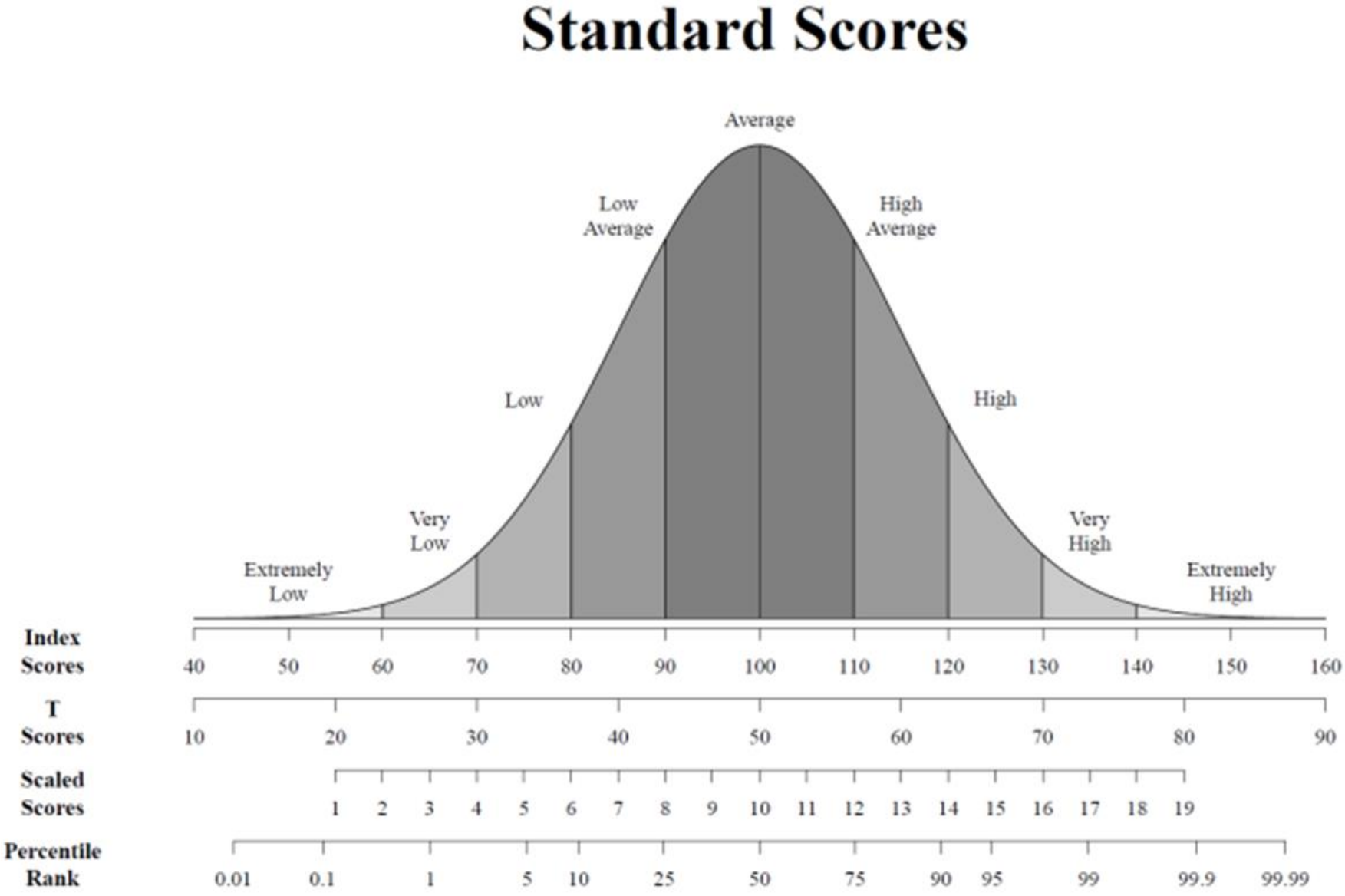
(A) Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both *clinical assessment and individualized, standardized intelligence testing*.

(B) Deficits in ***adaptive functioning*** that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.

(C) Onset of intellectual and adaptive deficits during the developmental period.

319 (F70 = Mild/ F71 = MODERATE / F72 = SEVERE / F73 = PROFOUND)

Normative Curve (or "Bell Curve")



Adaptive Functioning

Adaptive functioning should be assessed through standardized measures with the individual and interviews with others, such as family members, teachers and daycare providers.

The DSM 5 lists three areas of adaptive functioning:

- **Conceptual** – language, reading, writing, math, reasoning, knowledge, memory

- **Social** – empathy, social judgment, communication skills, the ability follow rules and the ability to make and keep friendships

- **Practical** – independence in areas such as personal care, job responsibilities, managing money, recreation and organizing school and work tasks

Adaptive Functioning

Adaptive Behavior Assessment System-Third Edition (ABAS-3, Ages 0 -5)

Adaptive Behavior Assessment System-Third Edition (ABAS-3/Ages 0 to 5): Parents' Report			
Adaptive Skill Area	**Skill Area Description**	**Scaled Score**	**Adaptive Level**
Communication	Speech, language, and listening skills needed for communication with other Individuals, including vocabulary, responding to questions, conversation skills etc.	6	Below Average
Community Use	Skills needed for functioning in the community, including use of community resources, shopping skills, getting around in the community etc.	9	Average
Functional Academics	Basic reading, writing, mathematics and other academic skills needed for daily, independent functioning, including telling time, measurement, writing notes and letters	6	Below Average
Home/ School Living	Skills needed for basic care of a home or living setting (or for the Teacher Form, school and classroom setting), including cleaning, straightening, property maintenance and repairs, food preparation, chores etc.	6	Below Average
Health & Safety	Skills needed for protection of health and to respond to illness and injury, including following safety rules, using medicines, showing caution etc.	8	Average
Leisure	Skills needed for engaging in and planning leisure and recreational activities, including playing with others, engaging in recreation at home, following rules in games etc.	6	Below Average
Self-Care	Skills needed for personal care including eating, dressing, bathing, toileting, grooming, hygiene	8	Average
Self-Direction	Skills needed for independence, responsibility and self-control, including starting and completing tasks, keeping a schedule, following time limits, following directions, making choices etc.	5	Low
Social	Skills needed to interact socially and get along with other Individuals, including having friends, showing and recognizing emotions, assisting others, using manners.	8	Average
Motor	Basic fine/gross motor skills needed for locomotion, manipulating the environment, developing more complex skills (e.g., sitting, standing, walking, fine motor control, kicking.	6	Below Average

ABAS-3: Domain Conversions					
Adaptive Skill Area	**Skill Area Description**	**Scaled Score**	**Standard Score**	**%tile Rank**	**Adaptive Level**
GAC	The GAC: Conceptual, Social, and Practical.	62	81	10th %tile	Below Average
Conceptual Composite	Communication skills (speech, language, listening, conversation skills, etc.), functional academic skills (basic reading, writing, and math skills), and self-direction (skills needed for independence, responsibility, self-control: starting/completing tasks, following directions, making choices.	17	76	5th %tile	Low
Social Composite	Social (skills needed to interact socially, get along with others, having friends, showing/recognizing emotions, using manners, etc.), and leisure skills (planning recreational activities with others.	14	86	18th %tile	Below Average
Practical Composite	Self-care (eating, dressing, bathing, toileting, etc.), home/school living (cleaning, property maintenance, chores, etc.), community use (using community), health/safety skills, etc.	31	84	14th %tile	Below Average

Adaptive Functioning

Adaptive Behavior Assessment System-Third Edition (ABAS-3: Ages 5-21)

Adaptive Behavior Assessment System-Third Edition (ABAS-3)			
Adaptive Skill Area	**Skill Area Description**	**Scaled Score**	**Adaptive Level**
Communication	Speech, language, and listening skills needed for communication with other Individuals, including vocabulary, responding to questions, conversation skills etc.	6	Below Average
Community Use	Skills needed for functioning in the community, including use of community resources, shopping skills, getting around in the community etc.	9	Average
Functional Academics	Basic reading, writing, mathematics and other academic skills needed for daily, independent functioning, including telling time, measurement, writing notes and letters	6	Below Average
Home/ School Living	Skills needed for basic care of a home or living setting (or for the Teacher Form, school and classroom setting), including cleaning, straightening, property maintenance and repairs, food preparation, chores etc.	6	Below Average
Health & Safety	Skills needed for protection of health and to respond to illness and injury, including following safety rules, using medicines, showing caution etc.	8	Average
Leisure	Skills needed for engaging in and planning leisure and recreational activities, including playing with others, engaging in recreation at home, following rules in games etc.	6	Below Average
Self-Care	Skills needed for personal care including eating, dressing, bathing, toileting, grooming, hygiene	8	Average
Self-Direction	Skills needed for independence, responsibility and self-control, including starting and completing tasks, keeping a schedule, following time limits, following directions, making choices etc.	5	Low
Social	Skills needed to interact socially and get along with other Individuals, including having friends, showing and recognizing emotions, assisting others, using manners.	8	Average
Work	Skills needed for successful functioning and holding a part or fulltime job in a work setting, including completing work tasks, working with supervisors, and following a work schedule	6	Below Average

ABAS-3: Domain Conversions					
Adaptive Skill Area	**Skill Area Description**	**Scaled Score**	**Standard Score**	**%tile Rank**	**Adaptive Level**
GAC	The GAC: Conceptual, Social, and Practical.	62	81	10th %tile	Below Average
Conceptual Composite	Communication skills (speech, language, listening, conversation skills, etc.), functional academic skills (basic reading, writing, and math skills), and self-direction (skills needed for independence, responsibility, self-control: starting/completing tasks, following directions, making choices.	17	76	5th %tile	Low
Social Composite	Social (skills needed to interact socially, get along with others, having friends, showing/recognizing emotions, using manners, etc.), and leisure skills (planning recreational activities with others.	14	86	18th %tile	Below Average
Practical Composite	Self-care (eating, dressing, bathing, toileting, etc.), home/school living (cleaning, property maintenance, chores, etc.), community use (using community), health/safety skills, etc.	31	84	14th %tile	Below Average

Adaptive Functioning

Adaptive Behavior Assessment System-Third Edition (ABAS-3:Ages 16-89)

Adaptive Behavior Assessment System-Third Edition (ABAS-3)			
Adaptive Skill Area	**Skill Area Description**	**Scaled**	**Adaptive Level**
Communication	Speech, language, and listening skills needed for communication with other people, including vocabulary, responding to questions, conversation skills etc.	4	Low
Community Use	Skills needed for functioning in the community, including use of community resources, shopping skills, getting around in the community etc.	3	Extremely Low
Functional Academics	Basic reading, writing, mathematics and other academic skills needed for daily, independent functioning, including telling time, measurement, writing notes and letters	3	Extremely Low
Home/ School Living	Skills needed for basic care of a home or living setting (or for the Teacher Form, school and classroom setting), including cleaning, straightening, property maintenance and repairs, food preparation, chores etc.	5	Low
Health & Safety	Skills needed for protection of health and to respond to illness and injury, including following safety rules, using medicines, showing caution etc.	6	Below Average
Leisure	Skills needed for engaging in and planning leisure and recreational activities, including playing with others, engaging in recreation at home, following rules in games etc.	4	Low
Self-Care	Skills needed for personal care including eating, dressing, bathing, toileting, grooming, hygiene	1	Extremely Low
Self-Direction	Skills needed for independence, responsibility and self-control, including starting and completing tasks, keeping a schedule, following time limits, following directions, making choices etc.	5	Low
Social	Skills needed to interact socially and get along with other people, including having friends, showing and recognizing emotions, assisting others, using manners.	6	Below Average
Work	Skills needed for successful functioning and holding a part or fulltime job in a work setting, including completing work tasks, working with supervisors, and following a work schedule	2	Extremely Low

ABAS-3: Domain Conversions					
Adaptive Skill Area	**Skill Area Description**	**Scaled**	**Standard**	**%tile**	**Adaptive Level**
GAC	The GAC: Conceptual, Social, and Practical.	39	65	1st %tile	Extremely Low
Conceptual Composite	Communication skills (speech, language, listening, conversation skills, etc.), functional academic skills (basic reading, writing, and math skills), and self-direction (skills needed for independence, responsibility, self-control: starting/completing tasks, following directions, making choices.	12	69	2nd %tile	Extremely Low
Social Composite	Social (skills needed to interact socially, get along with others, having friends, showing/recognizing emotions, using manners, etc.), and leisure skills (planning recreational activities with others.	10	75	5th %tile	Low
Practical Composite	Self-care (eating, dressing, bathing, toileting, etc.), home/school living (cleaning, property maintenance, chores, etc.), community use (using community), health/safety skills, etc.	17	60	0.4 %tile	Extremely Low

Global Developmental Delay (page, 41)

- *Global developmental delay*
- Significant delay (at least 2 SDs below the mean with standardized tests) in at least two developmental domains from the following:
  - Gross or fine motor
  - Speech/language
  - Cognition
  - Social/personal
  - Activities of daily living
- **Reserved for children <5 years old**
- Deficits in intellectual functions, such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
- Deficits in adaptive functioning that result in failure to meet developmental and socio-cultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation and independent living, across multiple environments, such as home, school, work and community.
- Onset of intellectual and adaptive deficits during the developmental period.

Communication Disorders

- Disorders of communication include deficits in language, speech, and communication.
  - *Speech* is the expressive production of sounds and includes an individual's articulation, fluency, voice, and resonance quality.
  - ***Language*** includes the form, function, and use of a conventional system of symbols (i.e., spoken words, sign language, written words, pictures) in a rule-governed manner for communication
  - ***Communication*** includes any verbal or nonverbal behavior (whether intentional or unintentional) that influences the behavior, ideas, or attitudes of another individual. Assessments of speech, language and communication abilities must take into account the individual's cultural and language context, particularly for individuals growing up in bilingual environments.
- The standardized measures of language development and of nonverbal intellectual capacity must be relevant for the cultural and linguistic group (i.e., tests developed and standardized for one group may not provide appropriate norms for a different group).
- The diagnostic category of communication disorders includes the following: language disorder, speech sound disorder, childhood-onset fluency disorder (stuttering), social (pragmatic) communication disorder, and other specified and unspecified communication disorders.

Autism Spectrum Disorder (ASD)
299.00 (F84.0) Page 50 - 51.

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
3. Deficits in developing, maintaining, and understand relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

ASD: Continued

B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following, currently or by history (examples are ***illustrative, not exhaustive***):

1. Stereotyped, or repetitive motor movements, use of objects, or speech (e.g. simple motor stereotypes, lining up toys or flipping objects, echolalia, idiosyncratic phrases):
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day):
3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g. strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment (e.g. apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

Autism Severity Levels

Severity Level for ASD	Social Communication	Restricted interests & repetitive behaviours
Level 3 - 'Requiring very substantial support'	Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others	Preoccupations, fixated rituals and/or repetitive behaviours markedly interfere with functioning in all spheres. Marked distress when rituals or routines are interrupted; very difficult to redirect from fixated interest or returns to it quickly.
Level 2 - 'Requiring substantial support'	Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others	RRBs and/or preoccupations or fixated interests appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress or frustration is apparent when RRB's are interrupted; difficult to redirect from fixated interest
Level 1 - 'Requiring support'	Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions	Rituals and repetitive behaviours (RRB's) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB's or to be redirected from fixated interest.


KHANACADEMY

What Are Comorbidities/Coexisting (or “Overlapping) Conditions?

“Comorbidity is often used to describe the presence of more than one identified psychiatric disorder in a patient. Feinstein first coined the term "comorbidity" in the general medical literature, defining it as "any distinct additional clinical entity that has existed or that may occur during the clinical course of a patient who has the index disease under study" (e.g., an individual with ASD and ID).

[Center for Disease Control].

Examples of Commodities and Developmental Disabilities

The prevalence of ASD was found to be 4.4% in persons with ID.

It has been found that increased severity of ID is positively correlated with the incidence of autism.

In fact, it can sometimes be difficult to distinguish autism from severe ID.

Individuals with ASD and ID may require additional support from the multidisciplinary team with regard to managing day-to-day living (e.g., safety/self-care, educational, occupational therapy for sensory stimulation, speech therapy input for communication).

Autism and Intellectual Functioning

- 75% of individuals have ID
- 50% have IQs in the severe-to-profound range of ID
- 25% test in the mild-to-moderate IQ range (i.e., IQ of 50 to 70)
- Remaining Individuals display abilities in the borderline-to-average IQ range
- Better language skills and IQ test performance predicts better lifetime prognosis

Attention-deficit Hyperactivity Disorder (ADHD)

- *Specify* whether:

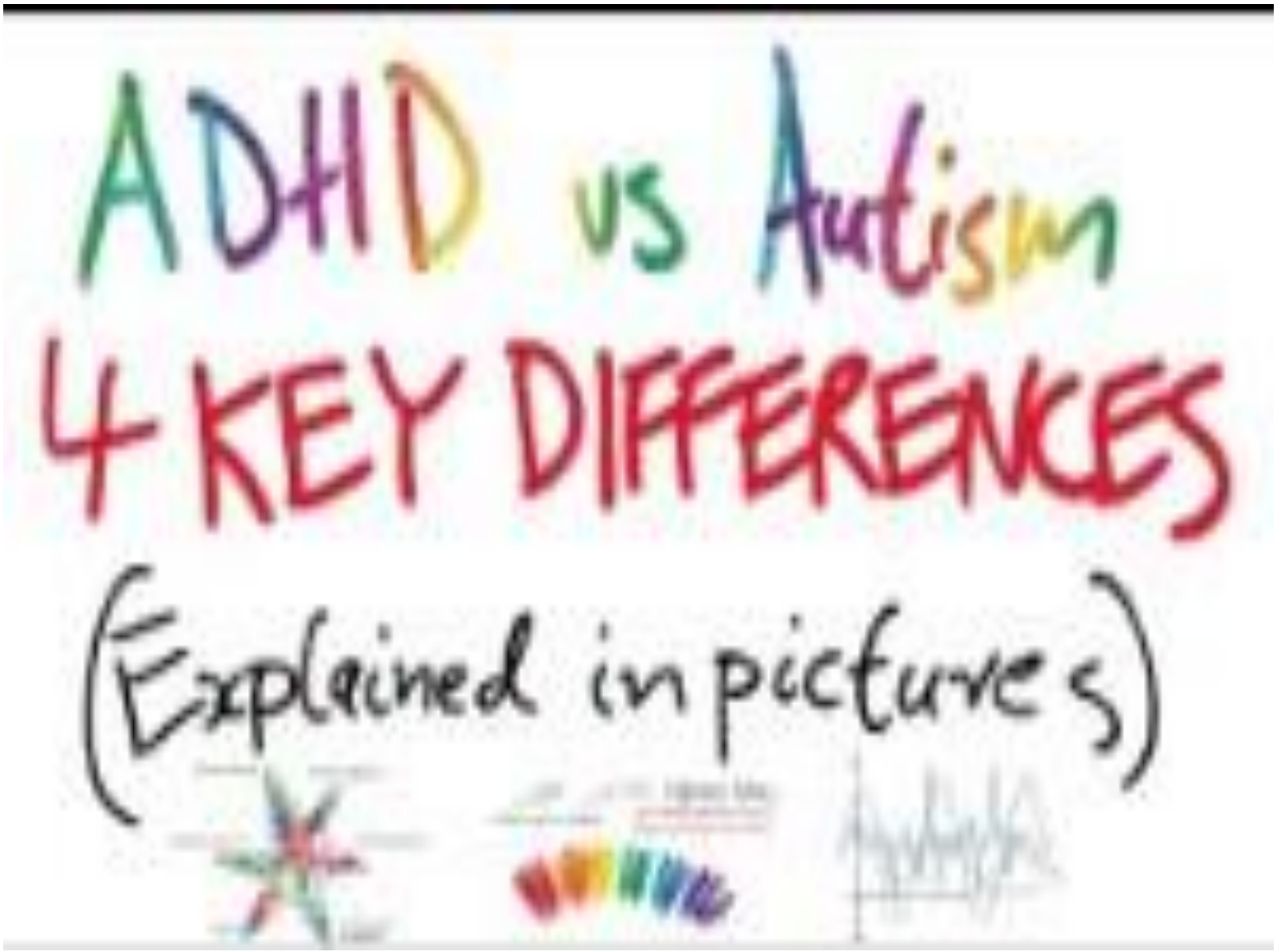
- **314.01 (F90.2) Combined presentation:** If both Criterion A1 (inattention) and Criterion A2 (hyperactivity-impulsivity) are met for the past 6 months.

1. **(F90.0) Predominantly inattentive presentation:** If Criterion A1 (inattention) is met but Criterion A2 (hyperactivity-impulsivity) is not met for the past 6 months.

2. **(F90.1) Predominantly hyperactive/impulsive presentation:** If Criterion A2 (hyperactivity-impulsivity) is met and Criterion A1 (inattention) is not met for the past 6 months.

- *Specify* if:

In partial remission: When full criteria were previously met, fewer than the full criteria have been met for the past 6 months, and the symptoms still result in impairment in social, academic, or occupational functioning.


ADHD vs Autism
4 KEY DIFFERENCES
(Explained in pictures)

Specific Learning Disabilities (SLD)

- 315.1 (F18.0) Specific Learning Disorder
  - With Impairment in Mathematics, Mild-to-Moderate
    - Number Sense
    - Memorization of arithmetic facts
    - Accurate of Fluent Calculation
    - Accurate Math Reasoning

- 315.00 (F18.0) Specific Learning Disorder:
  - With Impairment in Reading, Mild-to-Moderate
    - Word Reading Accuracy
    - Reading Rate Fluency
    - Reading Comprehension

- 315.2 (F81.1) Specific Learning Disorder:
  - With Impairment in Written Expression, Mild-to-Moderate
    - Spelling Accuracy
    - Clarity or Organization of Written Expression

Sensory-Sensitivity

- Sensory issues often accompany autism. In 2013, the American Psychiatric Association added sensory sensitivities to the symptoms that help diagnose autism.
- Autism's sensory issues can involve both **hyper-sensitivities** (over-responsiveness) and **hypo-sensitivities** (under-responsiveness) to a wide range of stimuli.
- **These can involve:**
- Sights
- Sounds
- Smells
- Tastes
- Touch
- Balance/ Body awareness (proprioception)
- Personal Space/Crowds/Crowded Places
- For example, many Individuals on the spectrum are hyper-sensitive to bright lights or certain light wavelengths (e.g. from fluorescent lights). Many find certain sounds, smells and tastes overwhelming. Certain types of touch (light or deep) can feel extremely uncomfortable.
- **(Autism Speaks)**

Behavioural Changes

- Functional attention decreases
- Psychosocial disruption (e.g., homes, school, community)
- Increased aggressive behaviour
- Injury to themselves or others
- Symptoms ADHD
- Increases irritability or agitation
- School or task refusal
- Increase in maladaptive behaviours
- Regression (or lost) of previously learned skills

Internalizing Disorders

- **Internalizing disorders** are psychological problems that primarily affect the child's internal world—for example, excessive anxiety or sadness, isolation, and withdrawal.

- DSM-5 does not list internalizing disorders as separate psychological disorders of childhood; rather, the manual notes that children may qualify for many "adult" diagnoses, such as anxiety or mood disorders.

Externalizing Disorders

Externalizing Disorders: characterized by children's failure to control their behavior according to the expectations of parents, peers, teachers, and/or legal authorities—for example, as a result of hyperactive behavior or conduct problems.

Externalizing Disorders

Symptoms of Externalizing Disorders

- Many externalizing symptoms involve violations of age-appropriate social rules, including disobeying parents or teachers, violating social or peer group norms (e.g., annoying others), and perhaps violating the law.
- Some misconduct is normal, perhaps even healthy, for children.
- However, the rule violations in externalizing disorders are not trivial and are far from “cute.”

Acting-Out Behaviors

Definition: Acting out is defined as the release of out-of-control aggressive or sexual impulses in order to gain relief from tension, anxiety, *or anxiousness*.

The earliest acting out behaviors are often referred to as ***temper tantrums***. These behaviors are usually first observed in infants between the ages of 9 - 18 months of age.

Temper tantrums can be considered a normal part of growth and development.

These early tantrums are simply an infant's attempt to communicate feelings of dissatisfaction or extreme disappointment. Observed behaviors in infants trying to express their anger or frustration usually include patently angry-sounding crying, kicking hands and feet, and possibly even trying to strike out.

Temper Tantrums

Toddlers:

- hitting,
- kicking, and
- biting others;
- and possibly self-injurious behaviors such as head-banging.

The child's reaction to the supposed cause of the tantrum is often markedly disproportionate to the precipitating incident.

An example would be the child who is told that he/she cannot have their tablet and then proceeds to violently attack the caregiver, hitting and kicking her, while screaming as loudly as possible.

Source: *http://www.healthofchildren.com/A/Acting-Out.html#ixzz6oeFvgC3Z*

Source: *http://www.healthofchildren.com/A/Acting-Out.html#ixzz6oeF0pcBc*

Self-injurious Behavior (SIBs)

- Though not common, SIBs sometimes occur in children and adults on the autism spectrum, particularly in those with intellectual disability and/or limited functional communication abilities.

- SIB is defined as behaviors that result in physical injury to an individual's own body.

- ***Common forms of SIBs in autistic individuals include***:
- head banging,
- punching or hitting oneself
- hand/arm biting,
- picking at skin or sores,
- swallowing dangerous substances or objects, and
- excessive skin rubbing or scratching.

(The American Academy of Pediatric)

Aggression

- direct or indirect
- active or passive
- physical or verbal

Flickr user: *clairity*

Aggressive Behavior

Adaptive Aggression

- **often applied as a survival mechanism for one's own protection.**
- **Response to environmental demands**
- **Physiological arousal (protective mechanism)**

Maladaptive Aggression

- **typically utilized when one has minimal problem-solving capabilities**
- **poor impulse control**
- **lack of self-control, and/or a poor overall coping repertoire (Conner, 2002) .**

What are Disruptive Behaviors?

Young Children	Adolescents
Tantrums	Exaggerated Frustration Aggressive Tantrums
Test limits	Projected Irritability
Poor Boundaries	Argumentative w/ adults
Does not follow rules	Impulsive
Oppositional	Breaks Laws
Has few friends	Truancy
Argumentative	Shift blame to others
Deliberately Lies	Chronic Suspensions
Impulsive	Lacks remorse
Intimidates	Experiment with Drugs, cigarettes, etc,
Aggressive	Has delinquent peers
Annoys/Blames others	Damage property
Resentful	Sexual Promisuity
Vindictive	Assaultive
Steals	Bullies/ Fights
Spiteful	Use a weapon (gun or knife) in fights.
Bullies	Torture animals
Picks fights	Set fires
Injure other children	Felony Arrests

Disruptive Behavior Facts

Flickr user: *clairity*

Disruptive Behavior are the most common reasons children are referred to mental health practitioners for possible treatment(Bloomquist &Schnell, 2002).

- Most common reason many
- Children are often labeled: Thus, depression, PTSD, learning disorders, typically go misdiagnosed or untreated

(Guerra, Huesmann & Spinder, 2003).

Other High-Risk Behaviors

- Running off in public without function or awareness
- Attempting to climb onto dangerous items
- Opening and closing doors/drawers
- Jumping on furniture
- Mouthing dangerous items (soap, chemicals, etc.)
- Placing items in nose or ears
- Removing seatbelt while vehicle in motion
- Tantrums while in stores
- Hiding in, and getting stuck in small palaces
- Removing clothing while in public
- Frequent agitation, aggression, and poor self-regulation.
- Playing in sinks while running water


AUTISM MELTDOWN

Anxiety and ASD

- Although anxiety is not considered a core feature of ASD, anxiety disorders are the most common comorbid conditions ASD individuals.

- 40% of young Individuals with ASD have clinically elevated levels of anxiety or at least one anxiety disorder, including obsessive compulsive disorder.

- It is particularly important to recognize and treat anxiety in ASD since it has a great impact on the course and the core aspects of the disorder, exacerbating social withdrawal as well as repetitive behaviors such as Pacing, Rocking, excessive stemming (e.g., finger and hand movements

- Moreover, while untreated comorbid anxiety has been associated with the development of depression, aggression, and self-injury in ASD, an early recognition and treatment may convey better prognosis for these patients. (Autism Speaks)

Depression and ASD

- The symptoms of depression include a flat or depressed affect (facial expression), reduced appetite, sleep disturbance, low energy, reduced motivation, social withdrawal and reduced desire to communicate with others.
-
- Many of these same symptoms can stem from autism rather than depression.
- Many individuals with autism spectrum disorders (ASD) show little facial emotion. This does not necessarily mean they're depressed! In other words, their affect doesn't necessarily match how they feel.

Vegetative Symptoms

1. Appetite
2. Sleep
3. Energy levels
4. Overall feelings of self in relation in the world (low self-esteem)
5. Helplessness and hopelessness
6. Poor concentration / difficulty with decision making


AUTISM &
SENSORY
CRISIS

Disruptive Mood Dysregulation Disorder (DMDD)

- Characterized by severe and recurrent temper outbursts that are grossly out of proportion in intensity or duration to the situation. Occurs, on average, three or more times each week for one year or more.
- Between outbursts, children with DMDD display a persistently irritable or angry mood, most of the day and nearly every day, that is observable by parents, teachers, or peers.
- A diagnosis requires the above symptoms to be present in at least two settings (at home, at school, or with peers) for 12 or more months, and symptoms must be severe in at least one of these settings.
- During this period, the child must not have gone three or more consecutive months without symptoms.

The onset of symptoms must be before age 10, and a DMDD diagnosis should not be made for the first time before age 6 or after age 18.

Bipolar Disorders

Bipolar disorder is a brain disorder that causes changes in a person's mood, energy, and ability to function.

Individuals with bipolar disorder experience intense emotional states that typically occur during distinct periods of days to weeks, often referred to as ***mood episodes***.

These mood episodes are categorized as manic/hypomanic (abnormally happy or irritable mood) or depressive (sad mood).

Individuals with bipolar disorder generally have periods of neutral mood as well..

Schizophrenia and Other Psychotic Disorders

***Core Concept*:**

1) Distorted perception of reality

2) Impaired capacity to reason, speak, and behave rationally or spontaneously

3) Impaired capacity to respond with appropriate affect & motivation

Psychotic Disorder and ID

- A general practice–based study of individuals with ID found the prevalence of epilepsy to be 18%.

- Persons with ID often suffer from multiple seizure types, and the rate of resistance to treatment is high, which necessitates multiple antiepileptic medications.[14]

- Compared with the general population, persons with ID are at increased risk for being obese, with its accompanying risks of diabetes mellitus and other problems.

- They also have an increased risk of being underweight. In addition, persons with ID are at increased risk for cardiovascular disease, which is a significant cause of death in this group.

Psychotic Disorder and ID

- The prevalence of psychotic disorder (including schizoaffective disorder) in individuals with ID is about 3.8%.
- This figure is in keeping with results from previous studies.
- As with the conditions discussed above, individuals with ID in whom a psychotic disorder develops may present differently from someone without ID.
- Bouras and colleagues compared psychopathology in 53 individuals with schizophrenia-spectrum psychoses and ID with that in 53 individuals with schizophrenia-spectrum psychoses but no ID. Those with psychosis and ID had more negative symptoms and functional disability than those without ID.

Crisis Defined

What is a crisis?

1. Involves a precipitating event.
2. The individual's perception of the event will cause subjective distress.
3. Usual methods of problem solving are not effective or not available which results in decrease in prior or baseline functioning.

Elements of a Crisis

- ✓ **Problem:**
- may create stress and be difficult to solve
- the family or individual is capable of finding a solution.
- a problem that can be resolved by an individual or a family without outside intervention is not a crisis.
- Oftentimes, a problem may seem like a crisis to a family or individual under stress and not thinking clearly.
- Interventions that establish trust and provide reassurance, advice or a referral by the social worker may resolve such a problem.

- ✓ **Emergency:**
- is a sudden, pressing necessity, such as when a life is in danger because of an accident, a suicide attempt, or family violence.
- requires immediate attention by calling "911" or EMT's/Medical, law enforcement, Psychiatric Team, DCFS, etc., or other professionals trained to respond to life-threatening events.
- If a situation can wait 24 to 72 hours for a response, without placing an individual or a family in jeopardy, it is a crisis and not an emergency.

Types of Situations That Can Lead To Crisis

1. **Individual (Significant Life Events)** - events that most view as happy, such as a marriage, the birth of a child, a job promotion, or retirement, can trigger a crisis in a family; a child enrolling in school, the behaviors of an adolescent, a grown child leaving the home, the onset of menopause, or the death of a loved one can also be very stressful life events.

2. **Family Situations** - a child abuse investigation, spouse abuse, an unplanned pregnancy, a parent's desertion, a chronically ill family member, and lack of social supports are examples of family situations that can create stress and crises.

3. **Economic Situations** - sudden or chronic financial strain is responsible for many family crises, such as loss of employment, eviction, no food, a theft of household cash or belongings, high medical expenses, missed child support payments, repossession of a car, utilities cut off from service, money "lost" to gambling or drug addiction, and poverty.

4. **Community Situations** - neighborhood violence, inadequate housing, a lack of community resources, and inadequate educational programs illustrate some ways the community may contribute to family crises.

5. **Natural Elements** -crises are created by disasters such as floods, hurricanes, fires, and earth quakes, or even extended periods of high heat and humidity, or gloomy or excessively cold weather.

Crisis as Opportunity vs. Danger

OPPORTUNITY:

Help → Higher level of functioning

↓

Growth, Insight, coping skills

DANGER:

No Help → Lower level of functioning

No Help → Nonfunctioning level

↓

Suicide, Homicide, Osychosis, **Trauma**

Crisis Intervention

. . . "an immediate psychological "intervention" aimed at assisting individuals in a crisis situation to *restore equilibrium* to the his/her/their biopsychosocial functioning and to minimize the potential for ***psychological discomfort (or trauma)."***

What are reactions associated with Trauma Exposure?

- **Psychological Impact : Infants**
- Multi-theoretical Perspective:
- Infants depend on caregiver for comfort and support (i.e., attachment).
- They sense and observe the expressions and responses of their caregiver and (often) respond accordingly (social learning models).

a. If the adult is anxious and overwhelmed, the infant will feel unprotected and may display a variety of symptoms, including:

- Sleep problems
- Disruptions in eating
- Withdrawal
- Lethargy , unresponsiveness or confusion (i.e., emotional dysregulation)
- Fussy and difficult to sooth

b. If the caregiver is calm and responsive and is able to maintain their daily routine, the child will likely feel safe and secure and symptoms will be avoided or minimized.

Psychological Impact : Toddlers

- children are interacting with the broader physical and social environment.
- As with infants, toddlers also reference the caregiver and will respond to traumatic situations as well as, or as poorly as the caregiver.
- *Common reactions in toddlers include:*
  - Sleep problems
  - Disruptions in eating
  - Increased and exaggerated tantrums
  - Toileting problems (e.g. excessive wetting)
  - Increased clinging to caretaker (features of ***SAD***)
  - Withdrawal , Dissociation, Lethargy,
  - Aggression

Psychological Impact : Preschoolers

- Have more social interactions outside of the home and family unit.
- Their language, play, social and physical skills are more advanced.
- More capable of expressing their thoughts and feelings, particularly following a ***traumatic event***.
- Common responses include:
  - Sleep problems
  - Disruptions in eating
  - Elevated and exaggerated tantrums
  - Bed-wetting
  - Irritability and frustration
  - Aggression and Defiance
  - Difficulty separating from caretakers
  - Preoccupation with traumatic events

Psychological Impact: School-Age Children

- More independent.
- Are better able to talk about their thoughts and feelings.
- Engaged in friendships and participation in group activities.
- They also possess better skills to cope with challenges or difficulties.
- *When confronted with a **traumatic event**, school-age children may exhibit the following symptoms:*
  - Sleep problems
  - Disruptions in eating
  - Difficulty separating from caretakers
  - Preoccupation with details of traumatic event
  - Anxiety and aggression
  - Problems with attention and hyperactivity
  - School difficulties

Psychological Impact: Adolescents

- Time of transition: e.g., maturation, etc.
- Struggles to become independent from their families.
- Begin to rely more heavily on relationships with peers.
- May show a tendency to deny or exaggerate what happens around them
- Typically feel that they are invincible (i.e., personal fable).
- When exposed to a "*traumatic event*," adolescents may show the following :
  - Sleep problems
  - Preoccupation with details of traumatic event
  - Hopelessness
  - Anxiety and aggression
  - School difficulties
  - Unrealistic sense of power
  - Difficulties with relationships
  - *Evidence of symptom-manifestation (becomes a part of the problem)*

Overview of Psychological Impact Across The Developmental Spectrum

•**Distressed Symptoms:** (features of PTSD), anxiousness, exaggerated startle-response**,** nightmares**,** ***fear of recurring violence*** *(i.e.,* intrusive thoughts).

•**Depressed Symptoms:** difficulties concentrating, **hopelessness,** irritability, distractibility, sleep difficulties or irregular sleep patterns, fatigued, emotional dysregulation.

•**Dissociative Symptoms:** (most common in younger children): *psychological numbing*, avoidance; in extreme cases, fainting or catatonia with severe lapses in memory.

•**Somatic Complaints: stomach aches**, chest pains, headaches, wheezing, reports of "**feeling queasy**," tense muscles.

•**Aggressive and/or Disruptive Behaviors: verbal/physical acting out**, fighting, assaults, use of weapons, sexual promiscuity, delinquency & other high-risk behaviors (e.g., gangs, tagging, destruction of property, robbery).

•**Substance Use/Abuse:** gradual and/or repeated use of illicit drugs and/or alcohol.